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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,288	04/09/2004	Pedro Angel Fernandez	200-66700 (PB040050AF)	1114
56929	7590	10/10/2006	EXAMINER	
LAW OFFICES OF MARK C. PICKERING			FORD, JOHN K	
P.O. BOX 300			ART UNIT	PAPER NUMBER
PETALUMA, CA 94953			3744	

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/821,288	FERNANDEZ ET AL.	
	Examiner	Art Unit	
	John K. Ford	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 7/5/06
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 16-30 and 32-36 is/are pending in the application.
- 4a) Of the above claim(s) 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-22, 24-30 and 32-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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Applicant's response of July 5, 2006 is acknowledged. Claims 1-15 have been canceled. Claims 16-22 and 24-35 have been previously identified as being readable on the elected species. Claim 23 is withdrawn as being directed to a non-elected species. Claim 31 has been canceled. A new claim 36 has been added. Accordingly claims 16-22, 24-30 and 32-36 are examined here.

Claims 17, 18 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims all have limitations regarding an implied vertical orientation of the first and second openings (e.g. "vertical separation", "vertical distance", "above" and "below" etc). Claim 16 has no language that places the openings in a vertical orientation. It is unclear which, if any of the claims are claiming, positively, vertically spaced openings in a vertical sidewall of the cabinet.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 16, 17, 18, 19, 20, 21, 22, 24, 25, 27, 28, 29, 30 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of any one of DE 19709145 or JP '698 or WO 02/32202 or Woods (US 2003/0085025) or JA 59-56695 and Holthouse (USP 2,372,897).

DE '145 (Figures 1,2 and 8-10) shows a heat exchanger/fan assembly mounted entirely on the outside of an electronics cabinet. "Fastening means" 43 are shown in Figure 1 (and in more detail in Figure 7) and appear to accept a bolt that passes through the element 43 and through plate 4 (see Figure 7) on either side of the upper and lower openings 34a and 34b (again, see Figure 7).

JP '698 teaches apertures 24 (probably bolt holes) around air passages 28 and 30 in the cabinet 22 shown in Figure 10 (to mount an external heat exchanger on an electronics cabinet).

WO '202 teaches in Figure 5 plenums 21 and 23 that are sealed to the outside of panel 22 of the electronics enclosure 10.

Woods shows, particularly in Figure 4 a vertical wall with at least two apertures upon the outside of the wall a heat exchanger is mounted.

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JP 59-56695 shows a heat exchanger mounted on the outside of a cabinet wall.

No connection means are illustrated around openings 10 and 11.

Finally, Holthouse Figures 1 and 2 shows a piece of air conditioning/ heat exchanging equipment mounted externally of an enclosed space and teaches a gasket 97 and a plurality of bolts 19 all the way around the periphery of the opening (23) in the wall between the enclosed space and the conditioning equipment. As shown in Figure 3, this opening 23 has eleven bolts 19 located around it. Notably three of these bolts happen to be located "directly" between that opening (23) and the other opening (22) to the left of it. Like, the system disclosed in DE '145 or JP '698 or WO '202 or Woods or JP '695, the air from inside the enclosed space is withdrawn from the enclosed space, temperature conditioned and returned to the enclosed space.

To have provide a plurality of bolt holes (at least two and preferably three or more on each side of the rectangular aperture) and a sealing gasket around each of the upper and lower rectangular openings shown in DE '145 in Figure 1 or around each of rectangular openings 28 and 30 in the top of casing 22 in JP '698 or around each of the rectangular openings communicating plenums 21 and 23 to corresponding rectangular apertures in panel 22 of WO '202 or around each of the rectangular openings communicating plenums 401 and 402 in Figure 4 of Woods or around each of the openings 10 and 11 in JP '695, to, in each case, advantageously sealingly engage the externally located heat exchanger to the cabinet to advantageously prevent water and

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unconditioned air from leaking into the respective cabinets of DE '145 or JP '698 or WO '202 or Woods or JP '695 would have been obvious to one of ordinary skill in the art in view of the teaching of Holthouse. More bolts would obviously permit one to obtain a tighter seal and a more reinforced construction.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 18 above, and further in view of Reinhard.

To have reversed the airflows in any of the prior art references in favor of the ones shown by Reinhard in Figure 5 would have been obvious to one of ordinary skill in the art since they accomplish the same overall result and to improve cooling at the top of the cabinet assuming that some high dissipation component was located there.

Claims 24, 25, 26, 27, 28, 29, 30, 32, 33, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 16 above, and further in view of Koltuniak.

To have added one or both of screens 64 and 70 as shown in Koltuniak to the inlet and outlet apertures in the cabinet of any of the prior art references to advantageously prevent dust and debris from entering the cabinet when the heat exchanger is removed for servicing would have been obvious from the teaching of Koltuniak. Because screens take up a finite area the combined cross-section of the

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screened passage is always less than the cross-section of the corresponding  
unscreened passageway having the same perimeter.

Any inquiry concerning this communication should be directed to John K. Ford at  
telephone number 571-272-4911.



**John K. Ford**  
**Primary Examiner**